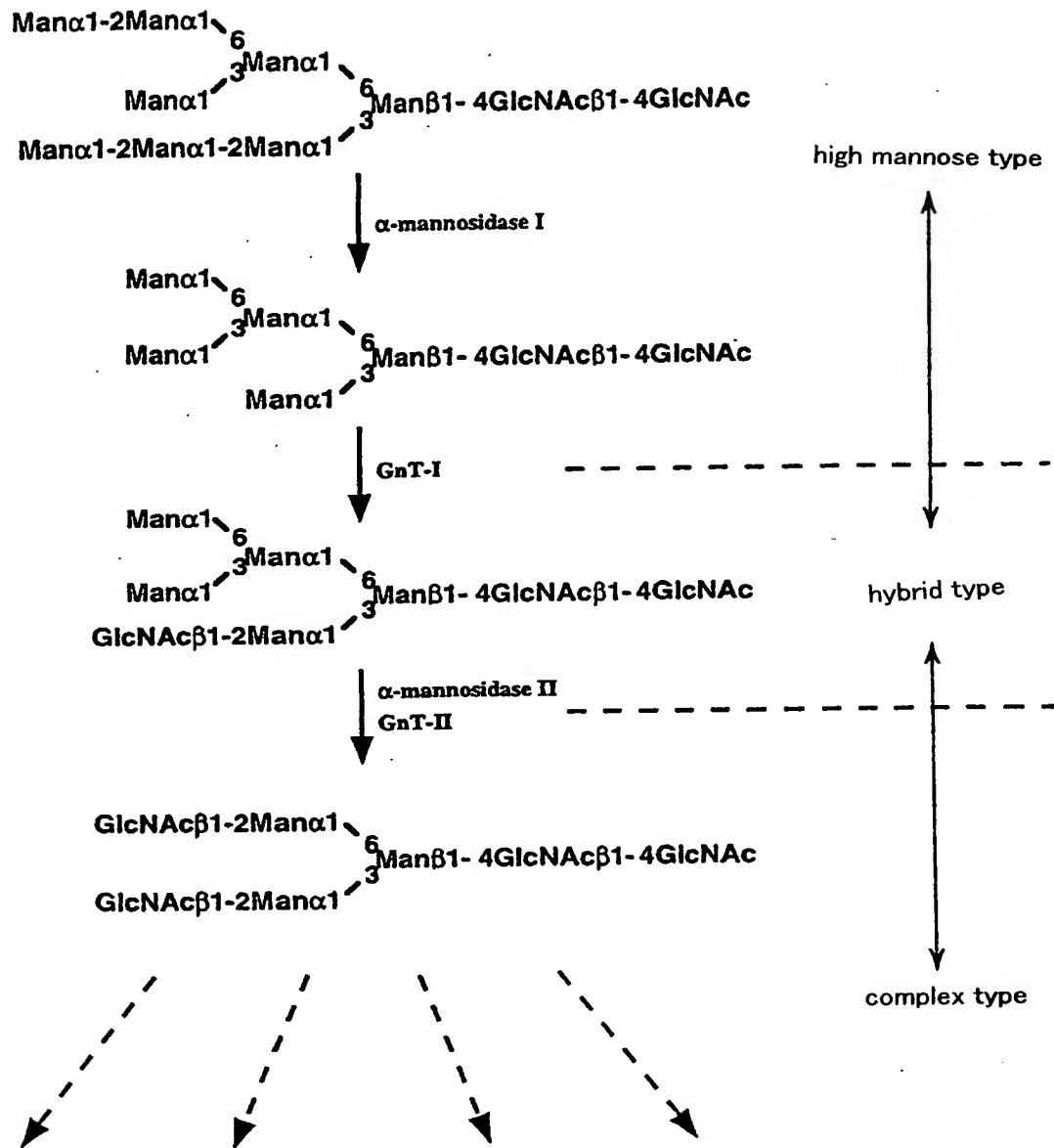


FIG. 1



The diagram illustrates the polymerization of aspartic acid (Asn) into various polyaspartic acid structures. The structures are labeled A through II, with some having subscripts like  $\alpha_2$ ,  $\alpha_3$ ,  $\beta_4$ , and  $\alpha_6$ .

**Structure A:** A central unit  $M_{\alpha_6} - M_{\alpha_6} - M_{\alpha_6}$  with  $\beta_4$  and  $\alpha_3$  substituents. It is flanked by  $M_{\alpha_2}$  and  $M_{\alpha_3}$  units. Below it are  $M_{\alpha_2}$  and  $M_{\alpha_3}$  units, with a  $*$  symbol above the  $M_{\alpha_2}$  unit.

**Structure B:** A central unit  $M_{\alpha_6} - M_{\alpha_6} - M_{\alpha_6}$  with  $\beta_4$  and  $\alpha_3$  substituents. It is flanked by  $M_{\alpha_2}$  and  $M_{\alpha_3}$  units. Below it are  $M_{\alpha_2}$  and  $M_{\alpha_3}$  units.

**Structure C:** A central unit  $M_{\alpha_6} - M_{\alpha_6} - M_{\alpha_6}$  with  $\beta_4$  and  $\alpha_3$  substituents. It is flanked by  $M_{\alpha_2}$  and  $M_{\alpha_3}$  units. Below it are  $M_{\alpha_2}$  and  $M_{\alpha_3}$  units.

**Structure D:** A central unit  $M_{\alpha_6} - M_{\alpha_6} - M_{\alpha_6}$  with  $\beta_4$  and  $\alpha_3$  substituents. It is flanked by  $M_{\alpha_2}$  and  $M_{\alpha_3}$  units. Below it are  $M_{\alpha_2}$  and  $M_{\alpha_3}$  units.

**Structure E:** A central unit  $M_{\alpha_6} - M_{\alpha_6} - M_{\alpha_6}$  with  $\beta_4$  and  $\alpha_3$  substituents. It is flanked by  $M_{\alpha_2}$  and  $M_{\alpha_3}$  units. Below it are  $M_{\alpha_2}$  and  $M_{\alpha_3}$  units.

**Structure H:** A central unit  $M_{\alpha_6} - M_{\alpha_6} - M_{\alpha_6}$  with  $\beta_4$  and  $\alpha_3$  substituents. It is flanked by  $M_{\alpha_2}$  and  $M_{\alpha_3}$  units. Below it are  $M_{\alpha_2}$  and  $M_{\alpha_3}$  units.

**Structure I:** A central unit  $M_{\alpha_6} - M_{\alpha_6} - M_{\alpha_6}$  with  $\beta_4$  and  $\alpha_3$  substituents. It is flanked by  $M_{\alpha_2}$  and  $M_{\alpha_3}$  units. Below it are  $M_{\alpha_2}$  and  $M_{\alpha_3}$  units.

**Structure II:** A central unit  $M_{\alpha_6} - M_{\alpha_6} - M_{\alpha_6}$  with  $\beta_4$  and  $\alpha_3$  substituents. It is flanked by  $M_{\alpha_2}$  and  $M_{\alpha_3}$  units. Below it are  $M_{\alpha_2}$  and  $M_{\alpha_3}$  units.

\*: potential phosphorylation site

**n : 50-100**

**m: 10-25**

FIG. 3

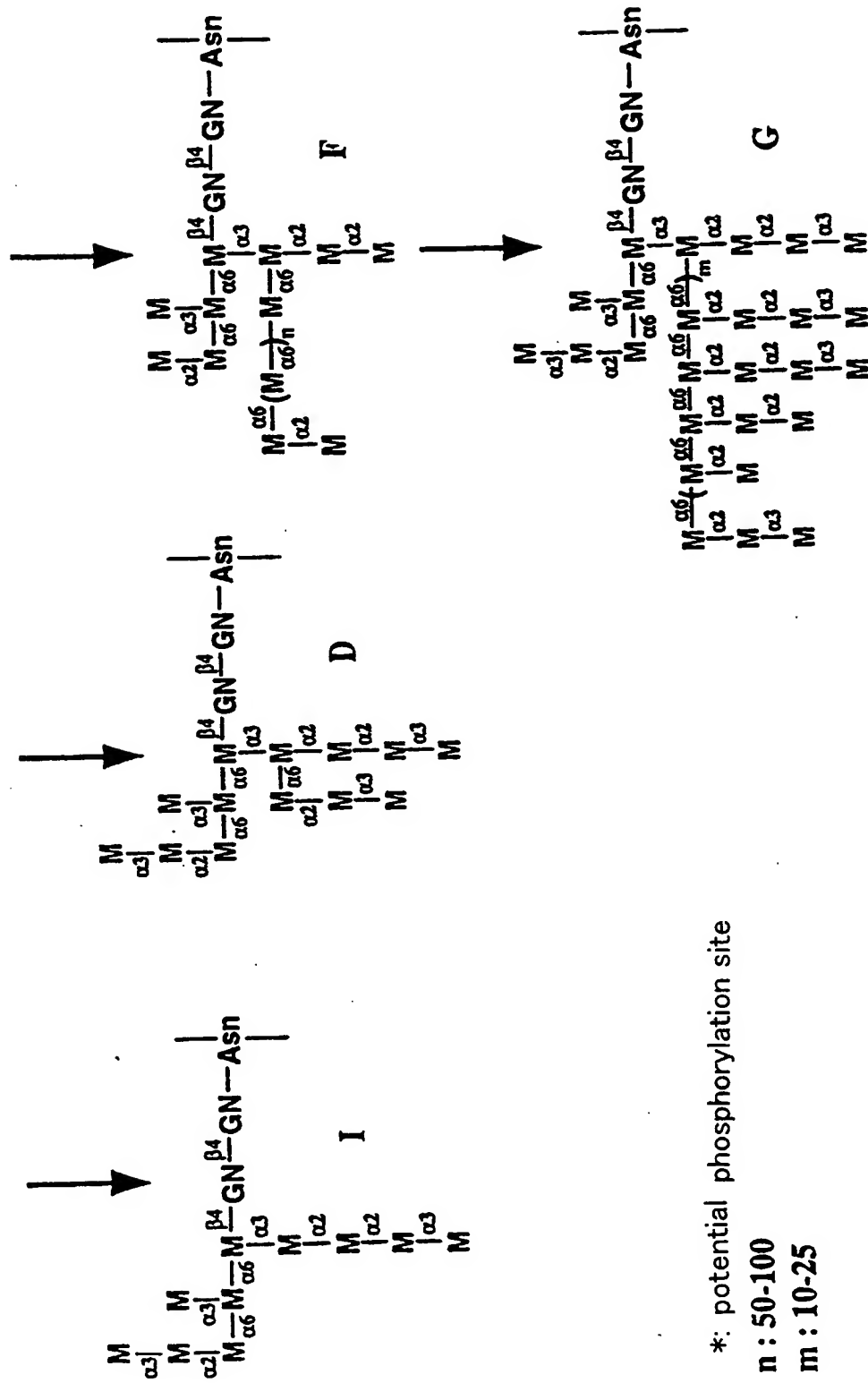


FIG. 4

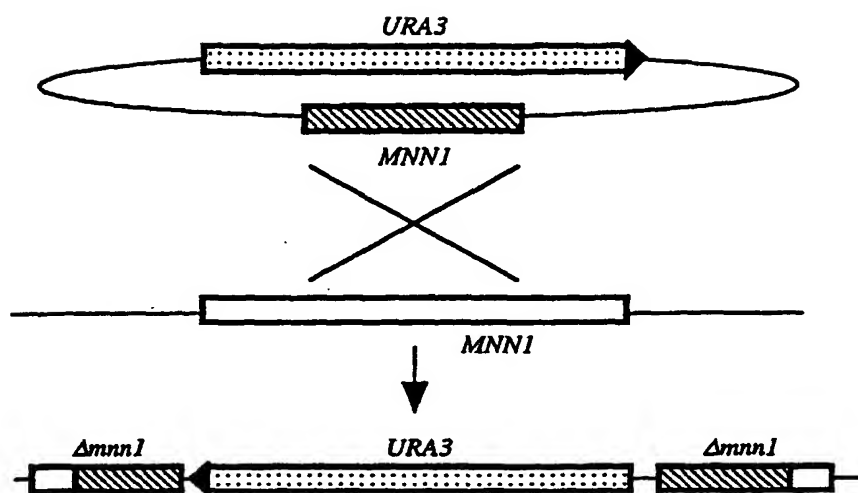


FIG. 5

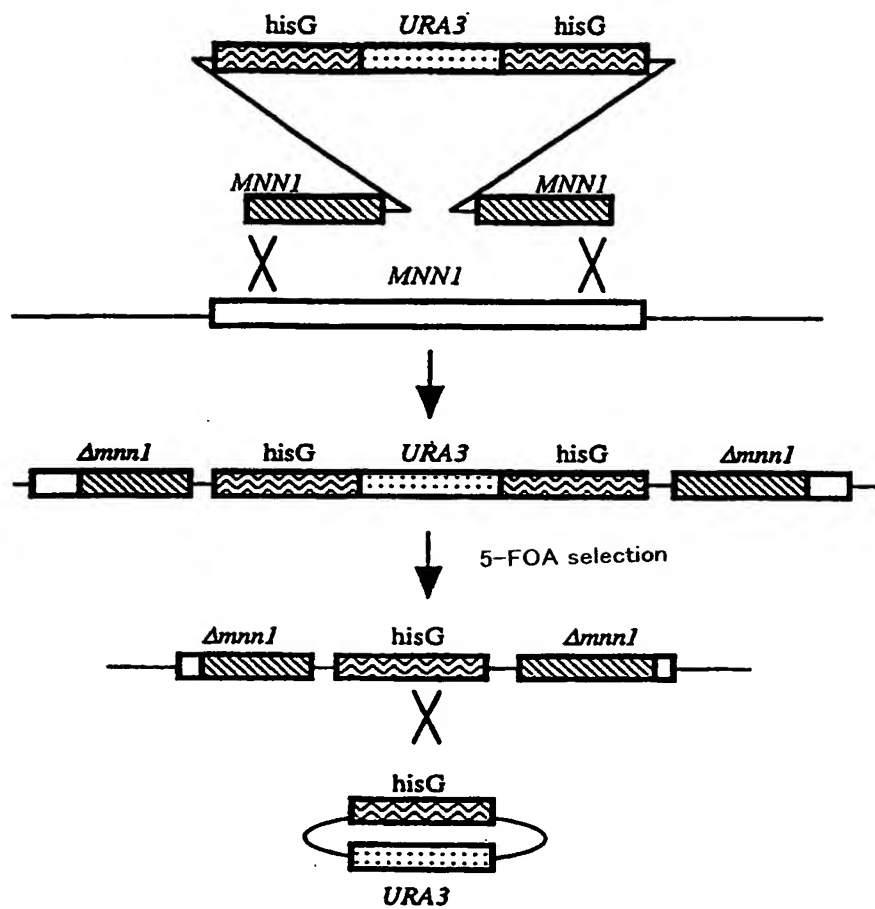
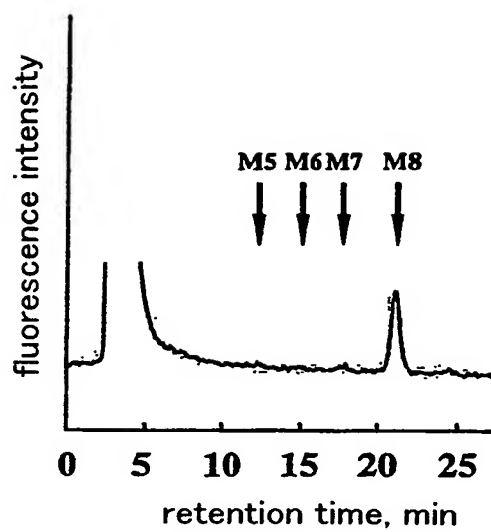


FIG. 6



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FIG. 7

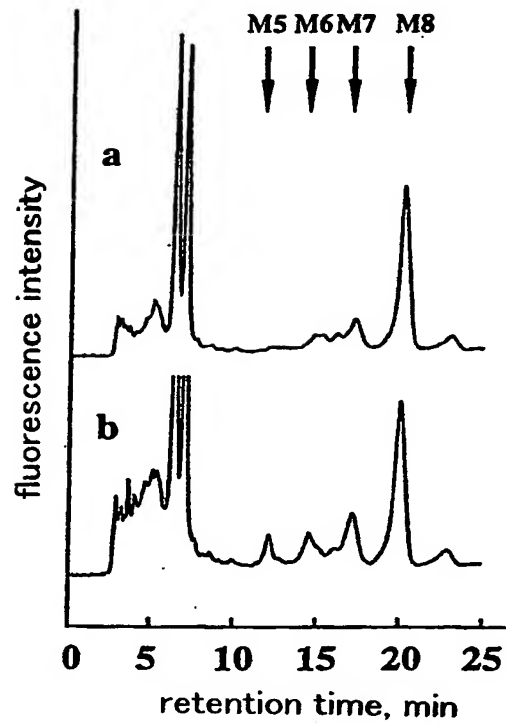


FIG. 8

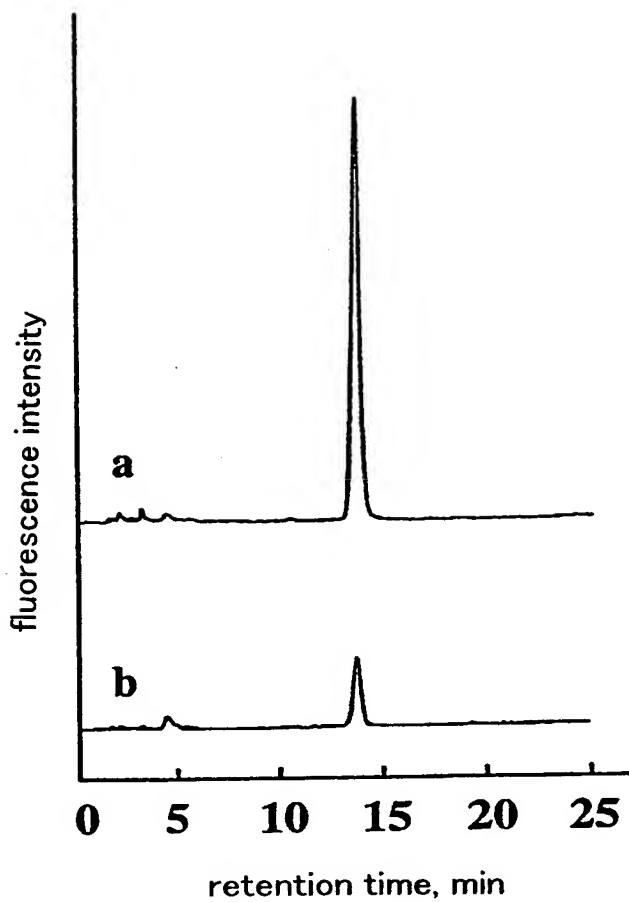




FIG. 9

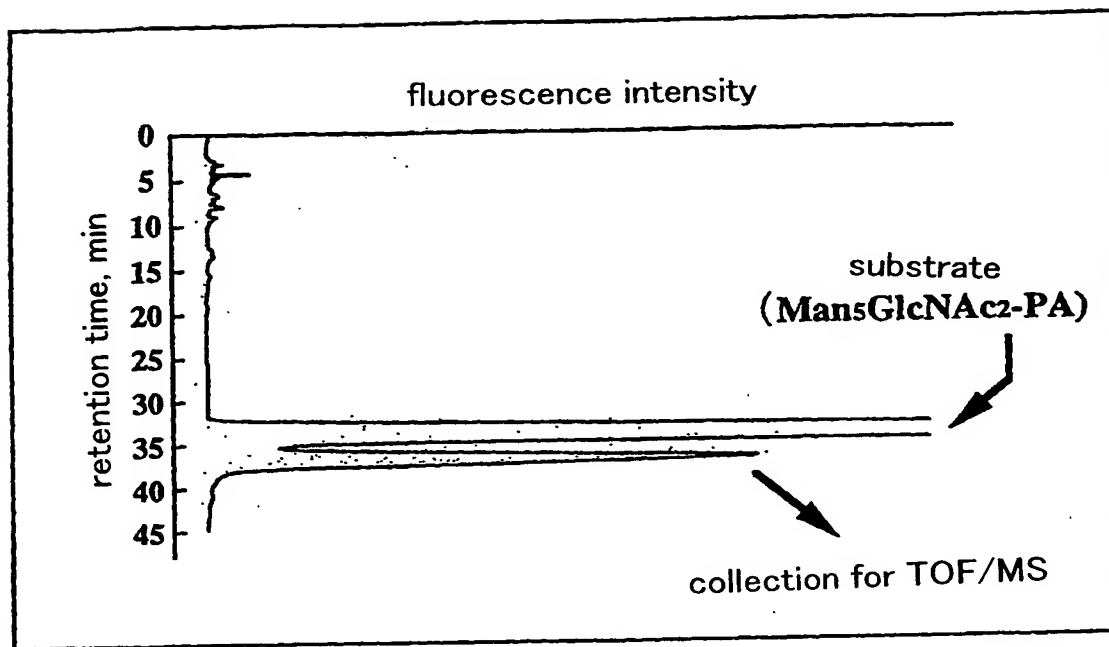


FIG. 10

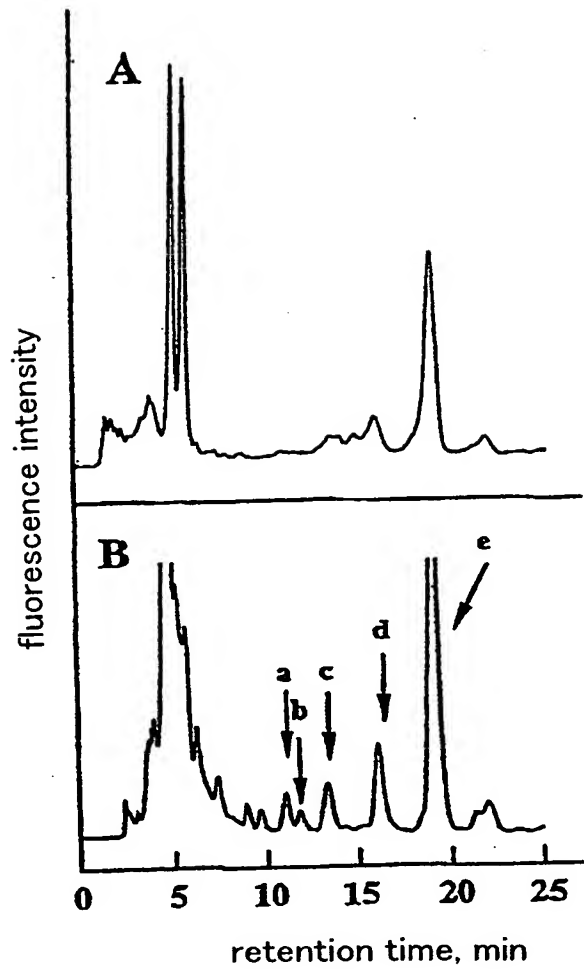


FIG. 11

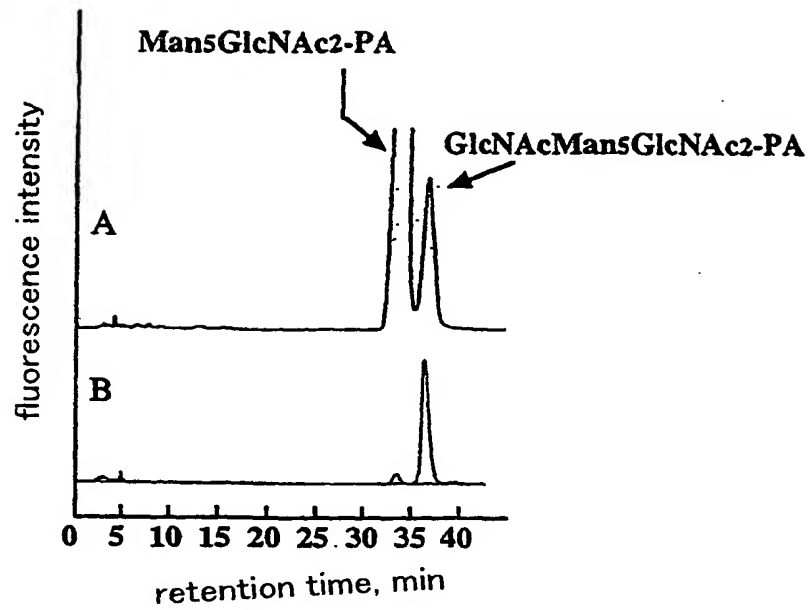


FIG. 12

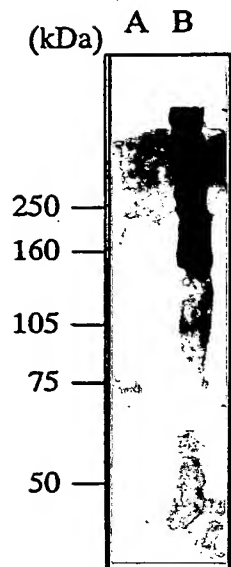


FIG. 13

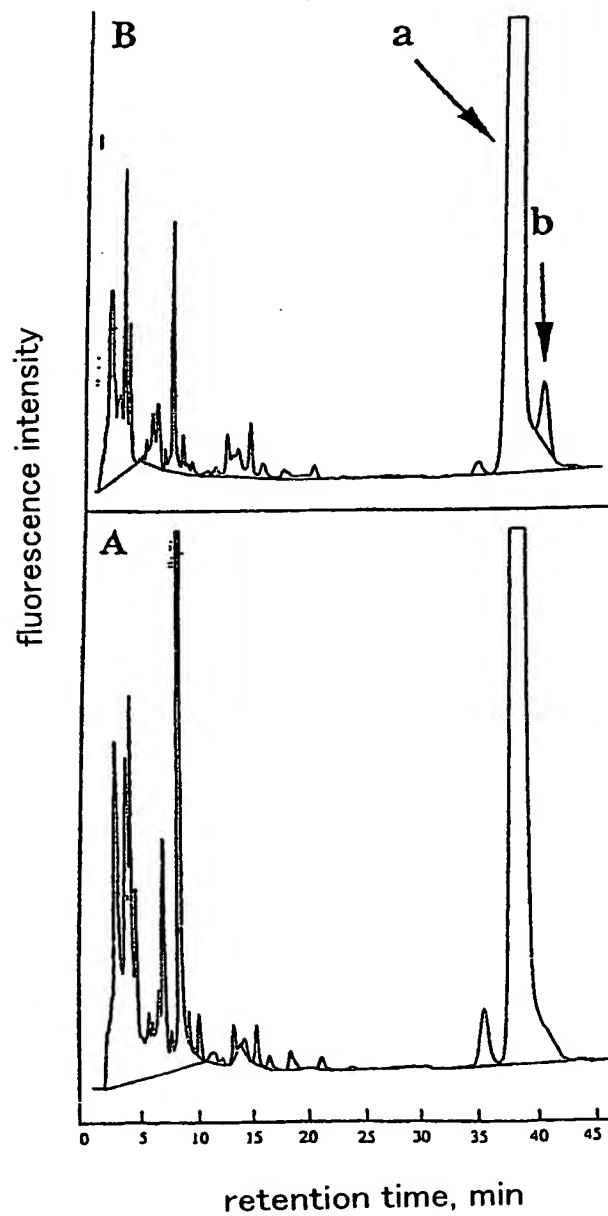


FIG. 14

